



TNFO

Figure 2.

QLQWLNRRAN ALLANGVELR KGOGCPSTHV LLTHTISRIA SPLAQAVRSS YEPIYLGGVF TELSLESFLI IAL TPEGAEAKPW EESPRDLSLI TGGPQGSRRC AESGOVYFGI LYLIYSQVLF ELAEEALPKK LHFGVIGPQR HVVANPQAEG EINRPDYLDF VSYQTKVNLL SAIKSPCQRE SRTPSDKPVA **QLEKGDR**LSA MSTESMIRDV DNQLVVPSEG VAGATTLECL

DNA sequence of TNFα

Figure 3.

gcatcgccgtctcctaccagaccaaggtcaacctcctctgccatcaagagcccctgccagagggagaccccagagg ttggagtgatcggccccagagggaagagttcccagggacctctctaatcagccctctggcccaggcagtcagatc atgagcactgaaagcatgatccgggacgtggagctggccgaggaggggcgctcccaagaagacagggggggcccag aaccgccgggccaatgccctcctggccaatggcgtggagctgagagataaccagctggtggtgccatcagagggcct atettetegaaceeegagtgacaageetgtageecatgttgtageaaaeeeteaagetgagggggagetecagtggetg gtacctcatctactcccaggtcctcttcaagggccaaggctgcccttccacccatgtgctcctcacccacaccatcagcc gggctgaggccaagccctggtatgagcccatctatctgggaggggtcttccagctggagaagggtgaccgactcagc gctgagatcaatcggcccgactatctcgactttgccgagtctgggcaggtctactttgggatcattgccctgtga

23328

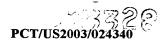
I'NFR1

WEDSAHKPOS QNGRCLREAQ ASENHLRHCL FOCENCSICL CTKLCLPQIE SKLYSIVCGK STETSSSTYT LCGPAALPPA DSVCPOGKYI SDHEIDRLEL LGCLEDIEEA VPHLGDREKR SDPIPNPLOK CRECESGSFT SCSNCKKSLE QYRHYWSENL GLMYRYQRWK PTLGESPVPS LGRVLRDMDL WKEFVRRLGL GIYPSGVIGL DCPGPGQDTD RDTVCGCRKN GFFLRENECV ADPILATALA PSESPTPGET GLCLLSLLFI LPLVLLELLV KONTVCTCHA AVVENVPPLR TPRREATLEL KCHKGTYLYN QVEISSCTVD RREVAPPYQG TVLLPLVIFF GTTTKPLAPN MGLSTVPDLL YSMLATWRRR SCSKCRKEMG LDTDDPATLY NGTVHLSCOE NVKGTEDSGT STPEKEGELE PGDCPNFAAP HPONNSICCT

Figure 5.

DNA sequence of TNFR1

ggcgacctggaggcggcgcacgccgcggggcgacggcacgctggagctgctggggacgcgtgctccgcgacatggacctgctg ctactaagcccctggccccaaacccaagcttcagtcccactccaggcttcacccccacctgggcttcagtcccgtgcccagttcca atgggcctctccaccgtgcctgacctgctgctgctgctggtgctcctggagctgttggtgggaatatacccctcaggggttattggac gtaccaagtgccacaaaggaacctacttgtacaatgactgtccaggcccggggcaggatacggactgcagggagtgtgagagcg gctccttcaccgcttcagaaaaccacctcagacactgcctcagctgctccaaatgccgaaaggaaatgggtcaggtggagatctctt cttgcacagtggaccgggacaccgtgtgtggctgcaggaagaaccagtaccggcattattggagtgaaaaccttttccagtgcttca gggcactgaggactcaggcaccacagtgctgttgccctggtcattttctttggtcttttgccttttatccctcctcttcattggtttaatgta cetteacetecagetecacetataceceggtgactgteceaactttgeggetecegeagagggggggggacacetetateagggg aagagaaaacgagtgtgtctcctgtagtaactgtaagaaaagcctggagtgcacgaagttgtgcctacccagattgagaatgttaa getgaccecatecttgegacagecetegeeteegaceceatececaacececttcagaagtgggaggacagegeceaaageca ggctgcctggaggacatcgaggaggggcgtttgcggccccgccgccctccgccgcgcccagtcttctcagatga



TNFR2

Figure 6.

LGSTEEKPLP PECLSCGSRC RKCRPGFGVA **PGNASMDAVC** FLLPMGPSPP RAPTRNOPOA SDHSSQCSSQ RLREYYDQTA PLCLOREAKV CVIMTQVKKK QEGCRICAPL RSQLETPETL PYAPEPGSTC STYTQLWNWV PHQICNVVAI LESSASALDR PEPSTAPSTS VICIVNVCSS SPGGHGTQVN RPGWYCALSK LGLLIIGVVN VPFSKEECAF SDTVCDSCED NTISSIDICR STRSQHTQPT ITAPSSSSSS HALPAQVAFT SPSESPKDEQ AVGLELWAAA TREQNRICTC CKPCAPGTES PVGLIVGVTA ARASTGSSDS QHAKVFCTKT PGAVHLPQPV TOGPEQQHLL ນ • MAPVAVWAAL TSTSPTRSMA SSDOVETOAC AEGSTGDFAL PGVEASGAGE QMCCSKCSPG PHLPADKARG ASSTMGDTDS LGVPDAGMKP RPGTETSDVV

Figure 7.

DNA sequence of TNFR2

atggcgcccgtcgccgtctgggccgctggccgtcggactggagcttgggctgcggcgcgcacgccttgcccgccaggtgg ggggacgttctccaacacgacttcatccacggatatttgcaggccccaccagatctgtaacgtggtggccatcctgggaatgca ctgtagcagctctgaccacagctcacagtgctcctccaagccagctccacaatgggagagacacagattccagccctcggagtc acceagetetggaactgggttecegagtgettgagetgtgggetecegetgtagetetgaecaggtggaaacteaageetgeacte cgctgcgcaagtgccgcccgggcttcggcgtggccagaccaggaactgaaacatcagacgtggtgtgtgaagcctgtgcccc cagctgaagggagcactggcgacttcgctcttccagttggactgattgtgggtgtgacagccttgggtctactaataataggagtg acgateceaacacageageaactecagaacecageactgetecaageacetectteetgeteceaatgggeeceageeeee catttacaccctacgccccggagcccgggagcacatgccggctcagagaatactatgaccagacagctcagatgtgctgcagc aaatgetegeegggeeaacatgeaaaagtettetgtaceaagaeeteggaeacegtgtgtaeteetgtgaggaeageacatae aaggeceggggtacacagggeceegagcagcagcacctgctgatcacageggeegggggggcagcagcagcagctcctggagag gaggcccgggccagcaccgggagctcagattcttcccctggtggccatgggacccaggtcaatgtcacctgcatcgtgaacgt cccgaaggacgagcaggtcccttctccaaggaggaatgtgcctttcggtcacagctggagacgccagagaccttgctggggg ctcggccagtgcgttggacagaagggcgcccactcggaaccagccacaggcaccaggcgtggaggccagtggggccggg agcaccgaagagaagccctgcccttggagtgcctgatgctgggatgaagcccagttaa

Figure 8.

IRADL

LRFCGRQPCG LDALLADEER SVGLKWRKVG EYEREGLYEQ AFQLLRRFVQ AEGRRATLQR **KVVLSDAYAH** VASAPLQPPV AYLFVESSLD AALAQHSVPL QLELRAGAER HRSDPQLIVQ OGOPVVNRPL SLKDQQTFAR LEDALRNLKC GSGARGGDGE QNGHEEWVGS SPDVLQMLKI TDPNGGLA. TSLAEDLLGL LRAALQR**SLA** RRPGGEMAAG RSLQRGCRAL RDPALDSLAY LOAALAESGG DRLRDEELAE PPPPAQTFLF LVEALEENEL LAGVGTQAPP RFLRAYREGA CLSCILAQQP POOKVAVYRA PSLSEVKPPP

Figure 9.

DNA sequence of TRADD

ctggcgggcgtgggaacccaggcccgccgaggcggccaggaggtgagatggcagctgggcaaaatgggcacgaagagtg cgagggggggcgctgcgcgcgctgcagaggagcctggcggccgcgctcgccagcactcggtgccgctgcaactggagc gaccggctccgggatgaagaactggctgagctggaggatgcgctgcgaaatctgaagtgcggctcggggggcccgggggtgg geegegecacgetgeagegeettggtggaggeactegaggagaacgageteaceageettggeagaggaettgetgggeettg aggtggcagtgtacagggctctgcaggctgccttggcagagagcggcgggagcccggacgtgctgcagatgctgaagatc cgacggggaggtcgcttcggccccttgcagcccccggtgccttctgtcggaggtgaagccgccgccgccgccac tctgtgggtctcaaatggcgcaaggtggggcgctcactgcagcgaggctgccgggcgctgcgggggacccgggcgctggactc gctggcctacgagtacgagcgcgagggactgtacgagcattccagcttccagctgcggcggcttcgtgcaggccgagggcc tgcgcgccggcgccgagctggacgctttgctggcggacgaggaggaggcgctgtttgagttgcatcctagcccagcagccc ggtgggcagcgcatacctgtttgtggagtcctcgctggacaaggtggtcctgtcggatgcctacgcgcaccccagcaga ctgcccagacttttctgttccagggtcagcctgtagtgaatcggccgctgaggcctgaaggaccaacagacgttcgcgcgc accgatcccaatggcggcctag

Figure 10.

TRAF2 (TNF receptor-associated protein 2)

LRRPFOACG KVRPFQAQCG **FYTSR**YGYKM CLRIYLNGDG EHVIDAFRPD FPDNAARREV GLVRLGEKER GCGKKKIPRE REHLAMLLSS RCESLEKKTA TFENIVCVIN REVERVAMTA CGADVKAHHE VCPKFPLTCD KQQEHEVQWL KDLAMADLEQ TIMILIDONNR LMLTÉCPACK KYLCSACRNV GISILESSSA IGCLETVEGE GRIPAIFSPA KTLLGTKLEA VQQLERSIGL LLRWPENOKV YESCHEGRCP ACVHEGIYEE LECPVSKMEA QSHAGSELLQ SIEILQPGFS ILRKLQEAVA GCTWKGTLKE LSCRHCRAPC KCRVPCRFHA ILSSGPQNCA QDKIEALSSK FVVMKGPNDA NDMNIASGCP FIKAIVDLTG KFODHVKTCG VLEAKPLLGD HRYCSFCLAS TGRGTHLSLF VISSSFORPV MAAASVTPPG ESLPAVCPSD HLEHECPERS EACSROHRLD KNSYVRDDAI HRYCSFCLAS

DNA sequence of TRAF2

Figure 11

atggctgcagctagcgtgacccccctggctccctggagttgctacagcccggcttctccaaagaccctcctggggaccaa getecttetgeetggeeageateeteagetetgggeeteagaaetgtgetgetgeetgtteaegagggeatatatgaagaa segaatgteeegegtgtaaaggeetggteegeettggtgaaaaggagegeeaeetggageageaegagtgeeeggagagaage tcccttgcagattccacgccatcggctgcctcgagacggtagagggtgagaaacagcaggagcacgaggtgcagtggctg gctcctgcagaggtgcgagagcctggagaagaagaagacggccacttttgagaacattgtctgcgtcctgaaccgggaggtgg agagggtggccatgactgccgaggcctgcagccggcagcaccggctggaccaagacaagattgaagcctgagtagcaag accgggcgaggaacacacctgtccctctttgtggtgatgaagggcccgaatgacgccctgctgcggtggcccttcaa ccagaaggtgaccttaatgctgctcgaccagaataaccgggagcacgtgattgacgccttcaggcccgacgtgacttcat gctggaagccaagtacctgtgctccgcctgcagaaacgtcctccgcaggcccttccaggcgcagtgtggccaccggtact tcccagtgatggatgcacctggaaggggaccctgaaagaatacgagagctgccacgaaggccgctgccgctcatgctga ctgagctgccggcattgccgggcaccctgctgcggagcagacgtgaaggcgcaccacgaggtctgccccaagttcccctt aacttgtgacggctgcggcaagaagaagatccccgggagaagtttcaggaccacgtcaagacttgtggcaagtgtcgag cgggagcacctggccatgctactgagctcggtgctggaggcaaagcccctcttgggagaccagagccacgcgggggtcaga gtgcagcagctggagaggagcattggcctcaaggacctggcgatggctgacttggagtagagcagaaggtcaggcccttccaggc ccgccatcttctccccagccttctacaccagcaggtacggctacaaagatgtgtctgcgtatctacctgaacggcgacggc cctctttcagaggccagtcaacgacatgaacatcgcaagcggctgccccctcttctgccccgtctccaagatggaggca aagaattcctacgtgcgggacgatgccatcttcatcaaggccattgtggacctgacagggctctaa

IRAP2

LHNSNTMRLG NGDVTSTILQ OLODELEMLA ENMAPGENKR QELDDAEKVQ QKQMAFMLGR THLENNRFGG ANTLVDVCAY GVAVLGIALI SKESHDADPE LGKGTLTLCP VTFDEELRPL LYLTSCVNYV AASLAMILLW TPILEGEVIL MVRLAQGLTH IDENAYAKVC EPKVPDDIYK PALALLSDYV ACGMIAVGSC EVVSEPFRSF EAPADMGAHQ NPRLNILDTL LVAAMOPR**ML** ELATEEFLPV KEOELSEEDK KNKDHGMLSA I FTSCKDVVV HLAGEVAKEW PHYGKLKEIY LASWGHEYVR YHAKDPNNLF LGKSHYVLYG VNSGVRNECD SMEVAGVTAL EAIEAILAAL KERRDAGDKD IEQVDMLEKD LALARELDIM KKEKKDKDKK PLALALISVS PVLLAHGERA MINDMELVED SVPKPLKFLR LTDDGNKWLY PGGTDEKPSG RFPEALRLAL GLGLNHLGKG DSKEKEEDKD LAAMLRQLAQ MSNVQLNSNF YGEPTLRRAV QIRSSTISMT KSGALLACGI LLPVMGDSKS TITGFQTHTT KYR**LVGSQEE** EHEACDLLME VNAAFGODKL VSFLDVRNII MVGSGTNNAR VAVAGLLTVL DVVGQAGKPK MTMSGERECL KDTYARWLPL GSNREDVLTL YRPALEELRR QLLHICSEHF ALRIEGHLLR VOPOOSPAAA IVPYNMAHNA CALGVERKES NLASSEVNGF KYLYSSEDYI VEEYEDLTEI SGSQVDSARM MEEGGRDKAP YHSDROLMSO **PVSVRVGQAV** VSYNSIFAMG ERLGEKDTSL FAADIISVLA PEPENSALLR HGVFLELSED DVDGGLTQID TIMEKSETEL AMGEEIGAEM SIFGLGLAYA AGSGNVLKVQ REPLLTLVKE RKNPNYDL

Figure 13.

DNA sequence of TRAP2

gaaggacattgatgaaaatgcatatgcaaaggtctgcctttatctcaccagttgtgaattacgtgcctgagcctgagaactcagccctactgcgttgtgccctgggtgtgttc ggccttagctcgggagctggacatcatggagcccaaggtgcctgatgacatctacaaaacccacctagagaacaacaggtttggggggagggctctcaggtggactctg ggagcctctgctcactctggtgaaggaaatcgtccctataacatggcccacaatgcagagcatgaggcttgcgacctgcttatggaaattgagcaggtggacatgctgga cccgcatgaacctggcctcctcttttgtgaatggctttgtgaatgcagctttttggccaagacaagctgctaacagatgatggcaacaaatggctttacaagaacaaggaccac ggaatgttgagtgcagctgcatctcttgcgatgattctgctgtgggatgtggatggtggcctcacccagattgacaagtacctgtactcctctgaggactacattaagtcagga gtatcgaccagcgctggaggaattgcgaaggcagattcgttcttctacaacttccatgacttcagtgcccaagcctctcaaatttctgcgtccacactatggcaaactgaagg atctttgggctaggcttggcttatgctggctcaaatcgtgaagatgtcctaacactgctgctgctgtgatgggagattcaaagtccagcatggaggtggcaggtgtcacagc tttagcctgtggaatgatagcagtagggtcctgcaatggagatgtaacttccactatccttcagaccatcatggagaagtcagagactgagctcaaggatacttatgctcgttg gatgccggggacaaggacaaagaacaggagctgtctgaagagataaacagcttcaagatgaactggagatgctcgcggaacgactaggggagaaggatacatcct geteccaggaggaattggcatcatggggtcatgagtatgtcaggcatctggcaggagaagtggctaaggagtggcaggagctggatgacgcagagaaggtccagcg cgaaagtttagccgcttccctgaagctctgagattggcattgatgctcaatgacatggagttggtagaagacatcttcacctcctgcaaggatgtggtagtacagaaacagat getettettgeetgtggcatagtgaactetggggteeggaatgagtgtgaeeetgetetggeaetgeteteagaetatgtteteeacaacageaacatgagaettggttee ggtggatgtgtgtgtatatgcaggctctgggaatgtgctgaaggtgcagcagctgctccacatttgtagcgaacactttgactccaaagagaagaaggaggaagacaaagaca cctaccacagcgaccggcagcttatgagccaggtggccgtggctggactgctcactgtgcttgtctctttcctggatgttcgaaacattattctaggcaaatcacactatgtatt ggetggeaageegaagaetateacagggttecagaegeatacaaececagtgttgttggeecaeggggaaegggeagaattggeeactgaggagtttetteetgttaeee ggcattcatgctaggccggcatgggggtgttcctggagctgagtgaagatgtcgaggagtatgaggacctgacagagatcatgtccaatgtacagctcaacagcaacttctt aacateetggataeeetaageaaatteteteatgatgetgateeagaagttteetataaeteeatttttgeeatgggeatggtgggeagtggtaeeaataatgeeegtetggetg getteetettggaetgggteteaaceaectggggaagggtgaggecategaggeaateetggetgeactggaggttgtgteagagecatteegeagttttgeeaacaeet gtgcagagatggcattacgaacctttggccacttgctgagatatggggagcctacactccggagggctgtacctttagcactggccctcatctctgtttcaaatccacgactc caatgetgegecagttageteaatateatgecaaggacceaaacaacetetteatggtgegettggeacagggectgacacatttagggaagggeaceettaeeettgee ccattctggaaggttttgttatccttcggaagaaccccaattatgatctctaa

Figure 14.

NAK/TBK/T2K

-	MOSTSNHLWL	LSDILGQGAT	ANVFRGRHKK	TGDLFAIKVF	NNISFLRPVD
51	VOMREFEVLK	KLNHKNIVK	FAIEEETTTR	HKVLIMEFCP	CGSLYTVLEE
101	PSNAYGLPES	EFLIVLRDVV	GGMNHIR ENG	IVHRDIKPGN	IMRVIGEDGQ
151	SVYKLTDFGA	ARELEDDEQF	VSLYGTEEYL	HPDMYERAVL	RKDHQKKYGA
201	TVDLWSIGVT	FYHAATGSLP	FRPFEGPRRN	KEVMYKIITG	KPSGAISGVQ
251	KAENGPIDWS	GDMPVSCSLS	RGLQVLLTPV	LANILEADQE	KCWGFDQFFA
301	ETSDILHRMV	IHVFSLQQMT	AHKIYIHSYN	TATIFHELVY	KQTKIISSNQ
351	ELIYEGRRIV	LEPGRLAQHF	PKTTEENPIF	WSREPLNTI	GLIYEK ISLP
401	KVHPRYDLDG	DASMAK AITG	WCYACRIAS	TLLLYQELMR	KGIRWLIELI
451	KDDYNETVHK	KTEVVITLDF	CIRNIEKTVK	VYEKLMK in	EAAELGEISD
501	IHTKLLRLSS	SQGTIETSLQ	DIDSRLSPGG	SLADAWAHQE	GTHPKDRNVE
551	KLQVLLNCMT	EIYYQFKKDK	AERRLAYNEE	QIHKFDKQKL	YYHATKAMTH
601	FTDECVKKYE	AFLNKSEEWI	RKMLHLRKQL	LSLTNQCFDI	EEEVSKYQEY
651	TNELQETLPQ	KMFTASSGIK	HIMTPIYPSS	NTLVEMTLGM	KKLKEEMEGV
701	VKELAENNHI	LERFGSLTMD	GGLRNVDCL		

Figure 15.

DNA sequence of NAK

gcaccgtgatatcaagccaggaaatatcatgcgtgttataggggaagatggacagtctgtgtacaaactcacagattttggtgcagctagagaat ctt caggatat c gacagcagat tat ct c caggt ggat cact gg cagac gcat gg gcacat caagaagg cact cat c c gaaaga cagaaat gt a atgcagagcacttctaatcatctgtggcttttatctgatattttaggccaaggagctactgcaaatgtctttcgtggaagacataagaaaactggtga gttggggttttgaccagtttttgcagaaactagtgatatacttcaccgaatggtaattcatgtttttcgctacaacaaatgacagctcataagatttat gagtggagacatgcctgtttcttgcagtctttctcggggtcttcaggttctacttacccctgttcttgcaaacatccttgaagcagatcaggaaaagt att cataget ataat act get act at ttt cat gaact ggt at ataa a caa a accaa a att att tet caa at caa gaact tat ctae gaaggegaege ttagtettagaacetggaaggetggcacaacattteectaaaactactgaggaaaaccetatatttgtagtaageegggaacetetgaataecata gtaggaataaagaagtgatgtataaaataattacaggaaagccttctggtgcaatatctggagtacagaaagcagaaaatggaccaattgactg ggattaatatatgaaaaatttccctccctaaagtacatccacgttatgatttagacggggatgctagcatggctaaggcaataacaggggttgtg aatatcaagaatatactaatgagttacaagaaactctgcctcagaaaatgtttacagcttccagtggaatcaaacataccatgaccccaatttatcc att gt caa att att gct att gaa gagagaga caa caa gacataa agt actt att at ggaatt tt gt ccat gt ggagt tt at acactg Itt tagaa agaaatatggagcaacagttgatctttggagcattggggtaacattttaccatgcagctactggatcactgccatttagaccctttgaagggcctc gaaaaactacaagteetgttaaattgeatgacagagatttactateagtteaaaaaagacaaageagaaegtagattagettataatgaagaaca aatccacaaatttgataagcaaaaactgtattaccatgccacaaaagctatgacgcactttacagatgaatgtgttaaaaagtatgaggcatttttg aataagtcagaagaatggataagaaagatgcttcatcttaggaaacagttattatcgctgactaatcagtgttttgatattgaagaagaagtatcaa tgaaactgttcacaaaaagacagaagttgtgatcacattggatttctgtatcagaaacattgaaaaactgtgaaagtatatgaaaagttgatgaa gatcaacctggaagcggcagagttaggtgaaatttcagacatacacaccaaattgttgagactttccagttctcagggaacaatagaaaccagt ttttagaaaggtttggctctttaaccatggatggtggccttcgcaacgttgactgtctttag

*97729Q

RasGAP3

EIDPVKLKDG PDVRYTAVSS KIVEKSLCPF WEQLQHVDAD TLAGPFRSEA ASEKESYMAT DDPQETYKTL WNASNLKFGD EDHVFSSDYY FISALASAEV KREGMKNFKK PERALYIOAN PCTGGLPANI KMKNNMFOVIO SKMRDCYCTV NLDQEEVFRT GEMIKRAQGR NYIRQOSETS DLQKYHNRDT LFLHYGRWVP EEICOSHKPC EAAKKFODD TLGSLSKSKS APSDSAPGCS EQEEYSTFVI NGQCDPYATV VDKLEIRVDL GSIRINAVYT EHPIGDKSFQ SVEQPIVLKE AVEKLEEESF CGSKSVYDGP IVECOGLPIV KSHFDFEEED GSKSLKPDDL KQEAAVPLVR VMCDIFFSLR TLTLISKTVQ YLSGHWLCCR YLHVTLKPAI IIGKVAIQKE KFKKTKYGSQ DETMKLAGMH PHHTDPQTSR ISSSGRRDPK LYSIPIENIL AKNLPSYPGP EVTRPCSYSK AHILGEVCRE ITESGVSCPT KRLTVYHPSA MSKLEKMQEA FDRDVERRDS AWYFLOPRDN GVVCHKLATR EQEHAQYKRD ADAVKNFLDL TYHKSKGDQP ILTKVSQCNQ FOSVKIKIGE NPQFDEVFYF KVLRQSSSYE ADVEPVSASA RGNSLASKCI ROYVDRVFHA ILSPNLFQLT ERIYSLFNLY LRLSEVITDT RSFRHLSFYI MAVEDEGLRV KRTQDPNTIF ENLENNMENL KQVIRWVGAL YGEDFYCEIP KKTKVKRKTN EFLGELRIPL SPLRDLLLKS FIFLRFFAPA FYEFFNEOKY RWFRLTNHEF NCVEAKDWID QLDIDGDRET SEVQGKVHLE

Figure 17.

RasGAP3 DNA sequence

atggeggtggaggacgaggggctccgggtcttccagagcgtgaagatcaagatcggtgaagccaaaaaccttccctcttacccggggccgagcaagatgaggg attgctactgcacggtgaacctggaccaggaggaggttttcaggaccaaaattgtggaaaagtcactctgcccgttttacggagaagacttttactgtgaaattcctcg agteceaetttgaetttgaggaggaggaggacaagetegaaateagagttgaeetetggaatgeeagtaaeetgaagtttggagatgaatteetgggagaaeta aggatecegttgaaagteetgeggeagteeageteetaegaggegtggtaetteeteeageeeegggaeaatggtageaagageetaaageeagaegaeetggg gagctttcgtcacctgtccttctacattttcgatagagacgttttccggagggattccatcatagggaaggtggccatccagaaggaggacttgcagaagtaccacaa ggtcgtctgccacaagctcgccacacgcatcgtcgagtgccagggcctccccatcgtgaatgggcaatgtgacccctacgccaccgtgacgctggcaggaccct ttgtacatgagcaagctggagaagatgcaggaggcctgtgggagcaaatctgtgtatgacggcccggagcaggaggaggagtattcgacgttcgtcattgacgacccc ggcggggatgcattacctgcatgtcaccctgaagcccgccatcgaggagatatgccagagccacaaaccctgtgaaatcgacctgtgaagttgaaagacggag cagggacacctggttccagctgcagcacgtggacgctgactcggaagtgcagggcaaagtgcacctggagctgagctgagctgagcgaggtcatcacagacactgg tcagatcagaagcaaagaagacgaaagtgaagaagaagaaccaacaatcccagttcgatgaagtgttttattttgaggtgacccggccctgtagctacagcaaga ctccctgcggctgaacgtggtatacacggaagaccacgtgttttcttctgactattacagccctctgcgggacctgctgttgaagtctgcggatgtggagcccgtgtc aaaaccttgaaaacaacatggagaacctacggcagtatgtggaccgcgtcttccacgccatcaccgagtctggggtgagctgcccgaccgtcatgtgtgacatctt ctetececeaacetettecageteaegecgeaceaeggacececaggaegtecaggaegetgaeattgatetecaagaeegtteagaeeeteggeageetgtee tcagtgccatcgccagcgcggaggtgaagcggacccaggaccccaacaccatcttccgaggaaactcactggcgtccaagtgcattgacgagaccatgaagct aagtecaaatetgegagttttaaggagteetacatggetacattttatgaattetteaatgageagaaatatgetgatgeggtgaagaaettettggatetgatttegteet cggggagaagagccccaagagtgttgagccgccatcgtgcttaaagaagggttcatgatcaagagggcccaaggacggaagcgtttgggatgaagaatttt gactcggctccgggctgctcgccctgcactggcggcctcccagccaacatccagctggacattgatggggaccgtgagacggagcgtatctactccctcttcaac ctteteeeteegggaggeggeggegaggetteeaggatgaeeeggaegteaggtaeaetgeagtgageagetteatetteetgaggttetttgegeeeggeatt caggagacctacaagacgctaaagcaagtcatccgctgggttggggctttggagcaggagcacgcccagtataagagggacaagttcaagaagacgaaatatg gaagccaggagcaccccatcggagacaagagcttccagaactacatccggcagcagtccgagacctccactcatttaa

TRCP1 (KIAA0143)

LDRIGSYLAE HVIQEILGHL FEANDLOGGS EDYELROLVL LEKHEKDLYF EEIAAQCESK ANLLHDRLAQ GEPKLQVLGT AVLAENCFRE VEGTSTHTLD YRHIYLGCKE MFHRCGIMAL SNNVPSDDVV GIQGVVRKTV MYSIQAQYSH IMMFIMGKVP PSATDKEENP LLKHLRLSVE SALINEDNLP DIVSIQVDIL RTEIRIAGIR LDPLLSPSIM FRDKCMLPKS TEYAVSAPEK LHMVAKLLES SEMKKNGQQL GPTVLEVENT DRLSRRKSIV VIEKFOKAPF QSIKPEVESF VDSRIGPPSS SNLPDYQRSE TIVTALPGSF KREKICRODT LIRLAIALOD EAPYFLPEHI GLVKTDMEKL CHSCHSDPEI EFAVHCFKII YEMKFPDLCV GHAQYQSVPV EEQEKEKRRL ELANEEVVID DNIFPEDPKD LDQLLMACHS DEEVSRESAM LLENMOKIEE LDHHKLWDPN ALIQTIGFFG VSKVIEIRTM VPYVPQVTDE AVAIAAKGSI LMVTSGYKAK IIPDVADLKI ALRPRYKRLV LKKAIDTSGM SPSGTLTITS SGYVLIAMEA PQHMDKIVPS NNAVRPVFAH RAGIIQVLLE GSGYSVERLS EDTPSYHRRY KDNDEKIVON RIQIMLLRSL MIAVPAFCQH DNRAKLRGIR LYTSLALITI LLGRATFGNM EDNVQKNYEL SNTEEITFEA ILELTIRPPP MPTRVCCCCS NDELRATIWE DARKKDAPRV VAAYLNEVSQ LINKIAESIG NSEVK**FANIE** VGSVNLNTSS ISQLGDLGTR EVMHNLMDRH RLSRDVVRHR



DNA sequence of TRCP1 (KIAA0143)

Figure 19.

accagagcatatcttcagagataagtgcatgcttccaaaatctttagagaagcatgaaaaagtttgtactttctgaccaacaagattgcagagtcgctaggtgg atgectaccegagtatgetgetgetegtteegetttgegteetegetacaaaegeetggtggacaacatatteeetgaagatecaaaagatggeettgtgaaaaet ctgctggaatcgggggaaccaaagcttcaagttcttggaacaaattcttttgtcaaatttgcaaatattgaagaagacacaccatcctatcacagacgttatgact ggggatttgggaaccaggagaattcagataatgttgctgagatctttgcttatggtgacctctggatataaagcgaagacgattgttactgcactgccagggtct tctgggtatgttttgattgctatggaggcactggaccaacttctcatggcttgccattctcaaagcattaagccatttgtagaaagctttcttcatatggtggcaaag tttttgtgtctcgattcagtgccatgtgccattcctgtcatagtgatccagaaatacgaacagagatacgaattgctggaattagaggtattcaaggtgtggttcgc attcaggctcagtattctcaccatgtgatccaggagattctaggacaccttgatgctcgtaaaaaagatgctcccgggttcgagcaggtattattcaggttctgt atgatttacaggggggatctgtaggcagtgtcaacttaaatacaagttccaaagacaatgatgagaagattgtgcagaatgctatcatccaaacaataggatttt ttggaagtaacctaccagattatcagaggtcagaaatcatgatgttcattatggggaaagtacctgtctttggaacatctacccatactttggatatcagtcaacta aagtggatatagtgttgagagattgtcagttccgtatgtaccacaagtaacagatgaagatcgactttctagaagaaaaagcattgtggacaccgtatccattca gatagacttgcccaaatattggaactcaccatacgtcctcccagtccatcaggaacactgaccattacttctgggcatgcccaataccaatctgtcccagtc gatatggagaaattgacattttatgcagtatctgctccagagaaactggatcgaattggttcttacctggcagaaaggttgagcaggatgftgtcagacatcgt tteetggateetttgttateaceateteteatggaggaetaegaaetgagaeagttggtettggaagtaatgeataateteatggategteatgaeaatagggeaa aaaacagtcaacgatgaacttcgggccaccatttgggaacctcagcatatggataagattgttccatccctcctgtttaacatgcaaaagatagaagaagttga tgggaatatgaataatgctgttagaccagtttttgcgcatttagatcatcacaaactgtgggatcccaatgaatttgcagttcactgctttaaaattataatgtattcc agettegagggateagaataataeeggatgtagetgaeetaaagataaaagagaaaaaatttgeagaeaagaeaeagttteatgaaaaagaatgggeaa cagotgtatoggcacatatatttgggttgtaaagaggaagacaacgttcagaaaaactatgaactactttatacttotottgotottataactattgaactggctaat gaagaagtagttattgatctcattcgactggccattgctttacaggacagtgcaattatcaatgaggataatttgccaatgttccatcgttgtggaatcatggcact ggttgcagcatacctcaactttgtaagtcagatgatagctgtccctgcattttgccagcatgttagcaaggttattgaaattcgaactatggaagccccttattttct tagaggctgttgccattgctgctaaaggttccataggtccgacagtgctggaagtcttcaatacccttttgaaacatctgcgtctcagcgttgaattcgaagcaa ggtggatattttatccaacaatgttccttctgatgatgtggttagtaacactgaagaaatcacttttgaagcattgaagaaagcaattgataccagtggaatggaa gaacaggaaaaggaaaaggggtcttgtgatagagaaatttcagaaagcaccttttgaagaaatagcagcacagtgtgaatccaaagcaaatttgcttcat tatgagatgaagtttccagatctgtgtgtgtactga

TRCP2 (similar to FLJ20758)

Figure 20.

ATLSKVEGTD VTGIEEVVIP DMFDQLLQAG EAWKMLGLFR GHQFGVTWRA VYTENALIEA SPALOVLREM DDDKFFQSAM IDVTLKWYED KSGENVAKFI ILMILMARDKH SDFAINQEOR LESRSFLLAK IELRKVKASV ELLNNRLHAD FFDLICLMEQ ILFLRAGRIO ICEGLTORVM ENDETSRKKA MGKRESPKDP CLRREHVEAR HTFRSDLREE TGRRAGLCEQ ARSCRFYSGS DDPYLMPASS FIIYDIMNEL SOPIROTAOD WPATSINCIA VELASAFSLP NLQTENTILK DOHRNEYYSK KIWKDSKEYG DISEAALKER QTGQSEALEE AYEQALNLYT DTTAVPYVEQ DVANRLEVIP SNSPSQAIEV TMIRGMVKHR RHMVAQKVKP **OPGDPLKRSS** TGDNWKFIGP MPEYFEPOIK QEPSTDYHFQ SDSDTSEGK GLRSRLGQPL LOALASTVNR DIAEPHIPCL EKWSKILELL QTMIHLLQAL LLDLLCYYGD MPEKNEHSYC TYHHIIRLED LAYQVHGLLK CAADIKSAYE LNELMDSAKV SDSDTDSSSD MAVVSAVRWL KKKTWDKVAV KNNAERIFSL PELQVAFAD INSYPKYFOK LIPSAYFPHS KHNKI PR**SEL** TTVSLETINS KAIGIEPSLA EALSNLTALT FVCAINEKFE SICSSIRDLE

Figure 21. DNA sequence of TRCP2 (similar to FLJ20758)

aggcacgcagctgcagattttattctggtagtgcaaccctctcaaaggttgaaggaactgatgtaacagggattgaagaagtagtaattcc gatgateettaeettatgeeageateatetttggaatetegtteatttttaetggeaaagaaateeggggagaatgtggeeaagtttattataa tgaagccgccctgaaggaacgaattgagctcagaaagtcaaagcctctgtggacatgtttgatcagcttttgcaagcaggaaccactgt gtotottgaaacaacaaatagtotottggatttattgtgttactatggtgaccaggagccotcaactgattaccattttcaacaaactggacag ctgagagaatcttttctctaatgccagagaaaaatgaacattcctattgcacaatgatccgaggaatggtgaagcaccgagcttatgagca aaaaaagaaaacttgggataaagtagccgttcttcaggcacttgcatccacagtaaacagggataccacagctgtgccttatgtgtttcaa ttcataccccaaatattttcagaaggacatagctgaacctcatataccgtgtttaatgcctgagtactttgaacctcagatcaaagacataag aaatgagaaatttgaggaaaaatggagtaaaatactggagctgctaagacacatggttgcacagaaggtgaaaccaaatcttcagacttt taataccattctgaaatgtctccgaagatttcatgtgtttgcaagatcgccagccttacaggttttacgtgaaatgaaagccattggaataga agttettegatttgatttgtetaatggaacaaattgatgttacettgaagtggtatgaggaeetgatacetteageetaettteeecaeteeaa acaatgatacatcttctccaagcattggatgtggccaatcggctagaagtgattcctaaaatttggaaagatagtaaagaatatggtcatac accctcgcttgcaacatatcaccatattattcgcctgtttgatcaacctggagaccctttaaagagatcatccttcatcatttatgatataatga tagaacttgcctaccaagtacatggccttttaaaaaccggagacaactggaaattcattggacctgatcaacatcgtaatttctattattcca ctttttaagggctgggagaactcaggaagcctggaaatgttggggcttttcaggaagcataataagattcctagaagtgagttgctgaat gagottatggacagtgcaaaagtgtctaacagcccttcccaggccattgaagtagtagagctggcaagtgccttcagcttacctatttgtg agggcctcacccagagagtaatgagtgattttgcaatcaaccaggaacaaaaggaagccctaagtaatctaactgcattgaccagtgac agtgatactgacagcagtgacagcgacagtgacaccagtgaaggcaaatga

TNFa-dependent recruitment of NAK on TNFR

